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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,015	06/24/2003	Ricardo SoonLian Lim	S104.12-0041/STL 11309.00	2576
7590 03/23/2006			EXAMINER	
KIRK A. CESARI SEAGATE TECHNOLOGY LLC 1280 DISC DRIVE SHAKOPEE, MN 55379-1863			PATEL, NITIN C	
			ART UNIT	PAPER NUMBER
			2116	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/603,015	<b>Applicant(s)</b> LIM ET AL.	
	<b>Examiner</b> Nitin C. Patel	<b>Art Unit</b> 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/24/03</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This is in responsive to communication filed on 3 February 2005.
2. Claims 1 – 20 are presented for the examination.

#### ***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 24 June 2003 was filed before the mailing date of the first office action. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### ***Specification***

The disclosure is objected to because of the following informalities:

4. In the specification, in line 4 replace the word "retied" with ---retried--- on page 2 as it is misspelled.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant admitted prior art [AAPA], and further in view of Arai, US Patent 6,122,235.
6. As to claims 1, 7, and 13, AAPA discloses disc drive storage device including a medium for storing multiple copies of system information, a processor, a firmware to read system information from storage medium and method of reading system information and retries if reading of that copy is unsuccessful after predetermined number of times, and moving to next copy to attempt to read next copy and continues until either system information is successfully read or all copies can not be read after attempting to read data from each copy the predetermined number of retries [background of the invention on page 1- 2].

However AAPA does not disclose establishing a minimal and maximal number of read retry attempts and iteratively attempt reading successive copies of the system information until either the system information is successfully read or the system information is not successfully read from any copy of the system information after the minimal number of attempts; and if the system information is not successfully read iteratively attempt reading successive copies of the system information until either the system information is successfully read or the system information is not successfully read from any copy of the system information after the maximal number of attempts.

Arai teaches a system and method of reading data out of recording medium when read error occurs including establishing a minimal and maximal number of read

retry attempts after detecting read error, setting a previously succeed retry [minimal number of retry attempts] [steps st1- st5, fig. 3] and if after minimal number of retry attempts information is not successful, setting predetermined number [maximal number of retry attempts] [steps st7-9] iteratively attempting to read system information until the predetermined [maximal] number of retries [col. 1, lines 6 – 9, 57 – 67, col. 4, lines 1 – 57, fig. 3].

It would have been obvious to one of ordinary skill in art, having the teachings of AAPA and Arai before him at the time of invention was made, to modify the retry scheme of storage device as disclosed by AAPA to include setting [establishing] of previously succeed retry parameter [minimal number of retry attempts] and predetermined number of retries [maximal number] as taught by Arai in order to obtain a multi-tiered retry scheme for one of ordinary skill in the art wanted to be motivated for reading system data out of disk with reducing the number of retries and time duration to finish the retry processing [col. 1, lines 52 – 54, 56 – 58].

7. As to claims 2, 5, 6, 8, 11, 12, and 18, Arai discloses ending the process he process if the system information is successfully read [End of read process] or if the system information is not successfully read [Error end][fig. 3].

8. As to claims 3, 9, and 14, Arai, teaches to read system information successively up to the minimal number [previously succeed retry] of attempts [fig. 3].

9. As to claims 4, 10, and 15 – 16, Arai, teaches to read system information successively up to the maximal number [predetermined number of retry] of attempts [fig. 3].

10. As to claims 17, and 20, AAPA discloses a disc drive device including a plurality of sectors and the multiple copies of system information stored in predetermined sectors [background, pages 1 – 2].

11. As to claim 19, Arai, teaches to read system information successively up to the minimal number [previously succeed retry] and maximal number [predetermined number of retry] of attempts [fig. 3].

12. **Examiner's note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

13. **Prior Art not relied upon:** Please refer to the references listed in attached PTO-892, which, are not relied upon for claim rejection since these references are relevant to the claimed invention.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin C. Patel whose telephone number is 571-272-3675. The examiner can normally be reached on 6:45 am - 5:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on 571-272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nitin C. Patel  
March 14, 2006

  
**LYNNE H. BROWNE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**